Remarks

Preliminary Matters

No Claims have been cancelled. No Claims have been added. No additional fees are required. If determined otherwise, the Office is authorized to charge Deposit Account No. 07-1077 for the amount.

§ 112 Rejection

The Office has rejected Claims 1-18 under 35 USC §112 with respect to lack of antecedent basis for the phrase: "the octagonal tubular formwork elements" and the identification of "the male engagement portion" in Claims 2, 3, and 12.

Applicants have amended Claim 1 to recite in the preamble that the claimed insert panel is an apparatus "adapted for engagement with a concrete fillable formwork wall having an elongated, octagonal tubular ~~formwork~~ form element" (with the underscored words being added and formwork being deleted.) All Claims now refer consistently to an "elongated, octagonal tubular form element" to assist in understanding how the claimed insert panel is structured to work.

Claim 1 has also been amended to clarify that the insert panel is adapted to mate with two different elongated, octagonal tubular form elements.

Also for consistent clarity, all references to "panel" have been amended to be "insert panel" for reasons explained below.

This patent application claims the insert panels which are designed to be attached to the octagonal, structural support elements of the concrete formwork. Co-pending patent application 10/531,621 claims those octagonal elements of concrete formwork. For reasons not germane to this examination, these two applications are pending and have been cross-referenced in the Information Disclosure Statements.

With reference to the drawings, Fig. 5 shows three octagonal form elements 10 that are linked to each other by coupling of male engagement portions 20 of one element 10 with respective female engagement portions 18 of another element 10. As

seen in Fig. 1, in this embodiment, each octagonal element 10 has two male engagement portions 20 and six female engagement portions 18.

The coupling of adjoining octagonal form elements 10 results in an angular outer surface of conjoined octagons, as seen in U.S. Pat. Nos. 5,216,863 (Figs. 1-3, 10, and 11) and 5,491,947 (Figs. 1, 2, and 8), both of record.

For a variety of appearance reasons, such conjoined octagons are not aesthetically pleasing because the structure of the formwork remains and reveals the manner of construction.

A substantially flat wall surface is needed for aesthetic appearance. The insert panel of the present invention solves that problem.

The claimed apparatus of the present application, the insert panel in its most basic embodiment, can be seen in Fig. 6 comprising a wall panel 22 with two ends 25 and a male engagement portion 26 at each end. In Fig. 6, the particular type of male engagement portion is a fin 28.

As seen in Fig. 7, attachment of panel 22 on adjoining, already coupled form elements 10 and 10 occurs using the male engagement portions 26 (fins) with respective female engagement portions 18 (one on each of the adjoining elements 10 and having a companion shape to receive the fins).

The result, as seen in Fig. 7, is a flat wall composed of alternating walls 14 (of elements 10) and wall panels 22 (of insert panels) and a triangular channel area 24 that is covered up by the insertion of the claimed insert panel on to the octagonally angled, coupled form elements 10. (See Fig. 8)

Figs. 9 and 10 show other embodiments of the claimed insert panel apparatus, to address the circumstance when the walls end and corners are needed. Fig. 11 shows the use of inside corner panel 44 and outside corner panel 30. Please note that the fins of male engagement portions are inversely structured to those of wall panels 22 but extend on the concrete side of the wall being formed, just as do fins 28 seen in Fig. 6.

Claim 1 has a structure paragraph and two "whereby" paragraphs of consequences of the structure claimed. The claimed insert panel has its ends of male

engagement portions specially adapted to engage an unclaimed structure[1] of female engagement portions. That structure paragraph in Claim 1 includes both the structure of flat panel 22 seen in Fig. 6 and both corner panels 30 and 44 seen in Figs. 8 and 9, respectively. Dependent claims distinguish among those embodiments.

Method Claims 10 and 11 have been amended for consistency of this explanation. Support for "substantially flat" wall comes from page 15 of the specification.

§ 102 Rejections

Piccone '648

The Office has rejected Claims 1-4, 6, 8, 10-13, 15, and 17 as anticipated by Piccone '648. Applicants traverse this rejection but not without recognition that Claims 5, 7, 9, 14, 16, and 18 (covering the corner panel embodiments of Figs. 9 and 10) are not considered to be anticipated. For that recognition, Applicants thank the Office.

But the rejected Claims are also novel over Piccone '648. Piccone uses the elements 12 of Figs. 2 with connecting members 14 of Fig. 3 to make the octagonal concrete formwork that has walls with the connecting points showing, as seen Fig. 1. Piccone '648 does not teach or disclose a substantially flat wall as made by Applicants' claimed insert panels when coupled by male/female engagement portions.

The element 12 seen in Fig. 2 of Piccone '648 can not anticipate Applicants' Claims because element 12 has *four ends*, not *two ends* as recited in Claim 1. Using Applicants' terminology for clarification purposes only, the element 12 has *a male engagement on two ends and a female engagement portion on two* ***other*** *ends*. When bisected along its natural symmetry (between numerals 24 and 52 in Fig. 2), element 12 has *one male engagement end and one female engagement end* on opposing sides.

[1] Unclaimed in this application but claimed in co-pending patent application 10/10/531,621.

Applicants' claimed insert panel recites **wherein the panel has two ends and a male engagement portion at each end**. Element 12 of Piccone has four ends and both male and female engagement portions on its four ends.

The connecting member 14 of Fig. 3 of Piccone can not anticipate Applicants' Claims because connecting member 14 does not have its male engagement portions at the ends. The male engagement portions 66/68 and 70/72 are not anywhere near the ends of the connecting member 14. Applicants' claimed insert panel recites **a male engagement portion at each end**.

Piccone's element 12 and connecting member 14 make sense for the type of formwork Piccone has invented. But Applicants' claimed insert panel apparatus is novel over Piccone. Piccone's invention can not function without element 12 and connecting member 14 *both* being used, whereas Applicants' concrete formwork system of octagonal form elements[2] can operate separately with structural integrity from the claimed insert panel of this application.

More specifically, the claimed insert panel of this application is an accessory to provide a substantially flat wall, though it is also relevant that female engagement portions of the octagonal form elements are different than the prior art to permit the formation of the substantially flat wall. That is why Claims 10 and 11 are to a "method of finishing a plurality of elongated tubular form elements to form a substantially flat wall."

Plückebaum

All but method Claims 10-11 were rejected as anticipated by Plückebaum '427. Applicants appreciate the recognition of novelty of the method claims over Plückebaum. Applicants traverse this rejection, because as seen in Figs. 9 and 10 of Plückebaum, the ends are female engagement portions. Extension section 9 seen in Fig. 8 does not anticipate Applicants' claimed insert panel because extension piece is not an "insert panel" as used by Applicants in their claims as support by their specification.

[2] claimed in co-pending patent application 10/531,621.

McNamara

All but method Claims 10-11 were also rejected as anticipated by McNamara '999. Applicants appreciate the recognition of novelty of the method claims over McNamara. Figs. 8-10 of McNamara do not show insert panels with male engagement portions at the ends of the panels. McNamara makes the same mistake as Piccone '648 by adapting the ends of elements and connecting members in such as way as to *create*, not *eliminate*, the unfinished, segmented, noticeable junction of two coupled wall sections. Please see Fig. 6 of McNamara. The ends of the respective sections make square formwork[3] with distinct recesses where the sections are joined together.

McNamara, like Piccone, tries to provide both the strength features and the finishing features of a formwork system in the same system components, and gets neither. Applicants separate their elongated, octagonal tubular form elements (structural integrity) from their insert panels (aesthetic appearance), so that the former provide strength and the latter provide finishing.

The purpose of the claimed insert panels of the present invention is to eliminate recesses caused by octagonal formwork such as that seen in U.S. Pat. No. 5,216,863 (Nessa). If anything, the smaller recesses of McNamara are *more* noticeable (Fig. 6) because the connections are pronounced as compared with the unending octagonal appearance of Nessa octagonal structure or the unending substantially flat appearance of Applicants' invention using its claimed insert panel *structurally adapted to* ***hide*** *the points of connection* in order to form a substantially flat wall.

Kim

Claims 1, 10, and 11 were rejected as anticipated by Kim '947. Applicants appreciate the recognition of novelty of the other claims over Kim. Applicants also traverse this rejection. Using Fig. 2[4] and Col. 3, lines 42-45, Kim's structure is a

[3] Square formwork does not benefit from the strength imparted by the angles of octagons.
[4] There is no Figs. 2A and 2B as identified in Cols. 2-4 of the specification making it most difficult to identify, with clarity, what are the various strips 19, 20, 23, 24, 26, 27... There is also a Fig. 8 in the drawings, but no reference to a Fig. 8 in the specification.

corrugated outside shell 14, a corrugated inside shell 16, and a series of cross webs 17 to link the outside shell to the inside shell.

At the end of the two shells 14 and 16, there must be a closure panel to prevent the concrete from flowing out of the formwork. Panel 25 as seen in Fig. 4B serves that purpose, with Fig. 3C showing how the panel 25 interconnects with item 21 "with an interconnecting edge strip 26 for completing the sheath encasement of the end of a wall or other structure." (Col. 3, lines 57-59.)

Regardless of how the Figs. are numbered vs. described (c.f., Footnote 4), Figs. 2 and 8 do not show any attempt to provide a substantially flat wall, as Applicants use that phrase in their application. Kim with his angled octagons is no closer than U.S. Pat. No. 5,216,863 (Nessa) in configuring a system of parts to result in a substantially flat wall having the aesthetic appearance of a flat and smooth wall. Please see page 34, first paragraph of Applicants' specification. Fewer angles and conjunctions make cleaning of a building easier. Fewer angles and conjunctions make other aesthetic appearances possible, whether painted murals or image graphics as a layer applied to the flat and smooth wall. Fewer angles and hidden conjunctions make the building's architecture to appear to be something other than a pored concrete wall where the formwork having octagonal geometry for strength was left behind.

To emphasize this point, Claim 1 is amended to identify that the engagement of the insert panel, because of the adaptation of the male engagement portions of those panels "forms a substantially flat exterior wall surface along the elongated, octagonal tubular form element or elements to which the insert panel is engaged." Support for the "exterior wall surface" addition to Claim 1 is found at page 5, lines 7-10.

Applicants also are novel over Kim because of their use of the claim term "insert" which is used with respect to the structures seen in Figs. 6, 9, and 10. As explained by Applicants in their specification, these inserts are finishing items for appearance purposes, not structural purposes, so-called at page 5, lines 7-10 to be "other formwork connecting members" . The structural integrity of Applicants' formwork system is not dependent on them. The same can not be said for panel 25 of Kim. Applicants' Claims 1, 10, and 11 are novel over Kim.

Other Matters

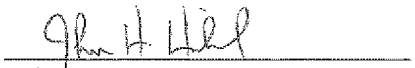
Applicants have provided further clarity to their Claims 4 and 13 with respect to structure of the wall panel embodiment of the insert panel and to their Claims 5 and 14 with respect to structure of the corner panel embodiment of the insert panel. Support for these amendments appears on page 5, 27 et seq. None of the cited references identify the nature of the male engagement portions, using Applicants' terminology, which emphasizes that projections at opposing ends of the insert panel embodiments have parallel or perpendicular relationships, respectively. Claims 4, 5, 13, and 14 are especially patentable.

Also, Claims 8, 9, 17, and 18 have been amended to recite that the apparatus of claimed insert panel forms substantially flat walls, something that none of the four cited references achieves. These four claims which depend from amended Claims 4, 5, 13, and 14 are also especially patentable.

Conclusion

Applicants' Claims 1-18, as amended, are patentable over each of the four references used to reject the Claims. Applicants and their Assignee request a Notice of Allowance.

Respectfully submitted by:



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